

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Application of:

J. Patrick Thompson, et al.

Confirmation No.: 1753

Application No.: 10/646,940

Group Art Unit: 2168

Filing Date: August 21, 2003

Examiner: Ly, Cheyne D.

For:

SYSTEMS AND METHODS FOR THE IMPLEMENTATION OF A BASE

SCHEMA FOR ORGANIZING UNITS OF INFORMATION MANAGEABLE

BY A HARDWARE/SOFTWARE INTERFACE SYSTEM

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Dear Sir:

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Pursuant to 37 CFR § 1.56 and in accordance with 37 CFR §§ 1.97-1.98, information relating to the above-identified application is hereby disclosed. Inclusion of information in this statement is not to be construed as an admission that this information is material as that term is defined in 37 CFR § 1.56(b).

In accordance with § 1.97(b), since this Information Disclosure Statement is
being filed either within three months of the filing date of the above-identified
application, within three months of the date of entry into the national stage of
the above identified application as set forth in § 1.491, before the mailing date
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\boxtimes	Copie	s of reference numbers 14 thru 94, 99, 100 thru 112 listed on the
	attach	ed Form PTO-1449 are enclosed herewith.
\boxtimes	Copie	s of reference numbers 95 thru 98 on the attached Form PTO 1449 are
	not re	quired to be submitted pursuant to the waiver of 37 CFR § 1.98(a)(2)(i).
		Copies of references - are not being submitted because
		they were previously cited by or submitted to the U.S. Patent and
		Trademark Office in patent application number , filed for
		which a claim for priority under 35 U.S.C. § 120 has been made in the
		instant application.

There are no listed references which are not in the English language.

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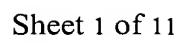
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Form PTO	-1449 Modified	Docket No. MSFT-1750/302726.01	Application No. 10/646,940		
Cited 1	nt and Publications by Applicant sheets if necessary)	Applicant J. Patrick Thompson, et al.			
<u> </u>	nent of Commerce Trademark Office	Filing Date August 21, 2003	Group 2168		
·		Confirmation No. 1753			
OTHE	R DOCUMENTS (Includ	ling Author, Title, Date, Pe	ertinent Pages, Etc.)		
14	-	nbining Language and Datab Environment", OOPSLA Pro	ase Advances in an Object- oceedings, October 4-8, 1987,		
15		l and Graphical Views of Me Digital Libraries, 1998, 256	-		
16	Beitner, N.D. et al., "Multimedia Support and Authoring in Microcosm: An Extended Model", <i>Department of Electronics and Computer Science</i> , University of Southampton, 12 pages				
17					
18	Between Database and F Data and Symposium on	Principles of Database Syst	ery and Data Consistency Conference on Management of ems, Proceedings of the 2002 ement of Data, 2002, 500-511		
19		nance of Three Database Stor	rage Structures for Managing		
20	Booch, G. Benjamin/Cur	mmings Publishing Co, "Obj s", 1994 , 155, 156, 179-183	ect-Oriented Analysis and		
21	Bracchi et al., "Binary Logical Associations in Data Modelling", Modelling in Data Base Management Systems G.M. Nijssen, (ed); North Holland Publishing Company: 1976, 125-147				
22	Buneman, P. et al., Inher ACM, 1986, 4-15	ritance and Persistence in Da	tabase Programming Languages,		
23					
EXAMINER		DATE CONSI	DERED		

Form PT	Form P1O-1449 Violitied			50/302726.01	Application No. 10/646,940	
Cite	J 11			Applicant J. Patrick Thompson, et al.		
<u> </u>	Data and Tanadama only Office			e 1, 2003	Group 2168	
			Confirmation 1753	ion No.		
OTH	HER	DOCUMENTS (Includ	ing Author	, Title, Date, Pe	ertinent Pages, Etc.)	
		Chryssostomidis, Chryss Aided Design of Marine	•		Modeling Issues in Computer 2(2) pp 15-33	
	· ·	"Computervision Launches Design Automation Development Platform for Windows", <i>PR Newswire</i> , Financial News, Jan. 10, 1995				
		Darby, C., "Object Serialization in Java 1.1. Making Objects Persistent, WEB Techniques, 1997, 2(9), 55, 58-59				
	1	"Developer's Guide to A Inc., 1997 , 1-34	ople Data Detectors-For Version 1.0.2", ©Apple Computer,			
		Dietrich, Walter C., Jr., e Geometry", <i>Software-Pro</i>		<u> </u>	riented System for Programming 1989 , 19(10), 979-1013	
		Dobashi, Y. et al, "Skylig Forum, 1994 , 13(3), C85	_	ior Lighting Des	sign", Computer Graphics	
		Acquires the Assets to A New, Jan.16, 1995, 4 pag	ltium's P-C ges	AD Business Un	PCB Unit-Accel Technologies nit", EDA Licensing, Electronic	
		Fegaras, Leonidas, "Opti Transactions on Databas			g an Effective Calculus", ACM, 457-516	
	32]	Findler, R.B. et al., Contract Soundness for Object-Oriented Languages ACM Conference on Object-Oriented Programming Systems, Languages, and Applications, <i>OOPSLA</i> , 2001, 15 pages				
EXAMINER	- .l . 			DATE CONSI		

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Form PTO	-1449 Modified	Docket N MSFT-17	o. /50/302726.01	Application No. 10/646,940		
Cited b	t and Publications y Applicant heets if necessary)	Applicant J. Patrick Thompson, et al.				
-	nent of Commerce Frademark Office	Filing Dat August 2		Group 2168		
		Confirma 1753	tion No.			
ОТНЕР	R DOCUMENTS (Includ	ling Author	r, Title, Date, Perti	inent Pages, Etc.)		
34	Issues in Geographic Dat	ta Modeling	g," November 2001	: Requirements and Research , Proceedings of the 9th ACM information Systems, 2-8		
35	International Symposium on Advances in Geographic Information Symposium of SQL3 Structured Types with Inh Value Substitutability", Digital Symposium Collection, 2000, Abstraction www.acm.org/sigmod/disc/p_implementationoyostw.htm					
36	Garret, J.H., Jr. et al, "An Object Oriented Environment for Representing Building Design and Construction Data", <i>Advanced Construction Technology Center</i> , June 1989, Document No. 89-37-04, 1-34					
37	Illumination Application	s", <i>APEC 2</i>	RISC-Microcontroller Based Photovoltaic System for APEC 2000. Fifteenth Annual IEEE Applied Power Exposition, February 6-10, 2000, 2, 1151-1156			
38	Goscinski, A. "Distribute Wesley, 1991, 306-313	·	* ****			
	Harrison, C.J. et al., "Str Inference", IEEE, 2000,	241-247				
	Haverlock, K., "Object S 23(8), 32, 34, 36-37					
	Hay, David C, "Data Mo Publishing, New York, N	VY 1996, 47	7-67, 235-259			
42	Hernandez, M.A. et al, "The Merge/Purge Problem for Large Databases, International Conference on Management of Data and Symposium on Principles of Database Systems", Proceedings of the 1995 ACM SIGMOD International Conference on Management of Data, 1995, 127-138					
43	43 Hsiao, H.I. et al., "DLFM: A Transactional Resource Manager", SIGMOD, Proceedings of the 2000 ACM SIGMOD International Conference on Management of Data, 2000, 518-528					
EXAMINER			DATE CONSIDE	ERED		

Form :	Form PTO-1449 Modified			o. 750/302726.01	Application No. 10/646,940		
C	List of Patent and Publications Cited by Applicant (Use several sheets if necessary)			Applicant J. Patrick Thompson, et al.			
	U.S. Department of Commerce Patent and Trademark Office			te 1, 2003	Group 2168		
			Confirmat 1753	tion No.			
O'	THE	R DOCUMENTS (Includ	ding Author	r, Title, Date, Pe	rtinent Pages, Etc.)		
	44	Kaneko, K, et al, "Desig	gn of 3D CG	Data Model of M	Iove Animation Database		
					ment Series, vol. 3, Proceedings		
, ,					se Systems, 1992 , 364-372		
	45	-	•		Object-Oriented Animation		
	•	•			ch and Development Series,		
	16	vol. 4, Database System.		····			
	40	Katz, R.H., "Toward a Unified Framework for Version Modeling in Engineering Databases", <i>ACM Computing Surveys</i> , 1990 , 22(4), 375-408					
	47				nstraint-Based Description and		
		1			Contributions based on		
		Lectures Presented at th	e 2d Toyota	Conference, Org	anization of Engineering		
			•	n Computer Integ	rated Manufacturing, Japan,		
		Oct. 2-5, 1988, 325-357					
	48	' '	•	ows 3.1 Bandwag	gon", Computer Aided		
	49	Engineering, 1993, 24-2		uation of Storing	XML Data in Relational		
	47	Database Management S					
	50	Khoshafian, S. et al, "Ol	_ -				
	51	Kiesling, R., "ODBC in 2002 , 27(12), 16-22	UNIX Envi	ronments", Dr . D	obb's Journal, December		
	52	 	n Investigati	on into the Imple	mentation and Exploitation of		
				-	BNCOD(British National		
		Conference On Data Ba.		-	· ·		
	53	<u> </u>			achine Design, July 24, 1990,		
		99-105	<u>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</u>				
	54		_		Extraction Using Objects",		
		Concurrent Engineering	r: Research	and Applications,	1993, 1, 31-38		
EXAMINER				DATE CONSII	DERED		
	 		_ 				

Form P	PTO	-1449 Modified	Docket No. MSFT-1750/302726.01	Application No. 10/646,940		
Ci	ited b	t and Publications by Applicant sheets if necessary)	Applicant J. Patrick Thompson, e	t al.		
1	•	nent of Commerce Frademark Office	Filing Date August 21, 2003	Group 2168		
	_		Confirmation No. 1753			
ГО	THE	R DOCUMENTS (Includ	ing Author, Title, Date, P	ertinent Pages, Etc.)		
	55		ype Systems for Object-Or uting Surveys, December 2	riented Database Programming 2002 , 34(4), 409-449		
	56	Lim, J.B. et al, "Transaction Processing in Mobile, Heterogeneous Database Systems", <i>IEEE Trans. on Knowledge and Data Engineering</i> , 2002 ,14(6), 1330-134				
	57	Mallet, S. et al., "Myrtle: A Set-Oriented Meta-Interpreter Driven by a Relational Trace for Deductive Databases Debugging", Lecture Notes in Computer Science, 1999, 1559, 328-330				
	58	Mariani, J. A., Oggetto: ' The Computer Journal, :	•	ase Layered on a Triple Store",		
	59	McMahon, L.E, "SED-A 15, 1978, 10 pages	Non-Interactive Text Edit	or", Bell Laboratories, August		
	60	"Mechanical Design Soft 1993, 12(12), 32-36	ware (Buyers Guide)", Con	mputer-Aided Engineering, Dec		
	61	Melton, J. et al, "SQL an 2001 , 30(1), 70-77	d Management of External	Data", SIGMOD Record, March		
	62	Mitchell, W.J., "The Log 1990 , 139-143	ic of Architecture", Massa	chusetts Institute of Technology,		
	63	Navathe, S.B., "Evolution ACM, September 1992,		tabases," Communications of the		
	64					
EXAMINER			DATE CONS	IDERED		

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Form l	rorm P1O-1449 Vloquied			50/30 2726.01	Application No. 10/646,940	
C	List of Patent and Publications Cited by Applicant (Use several sheets if necessary)			Thompson, et a	l.	
	-	nent of Commerce Trademark Office	Filing Dat August 2		Group 2168	
			Confirmat	ion No.		
O	THE	R DOCUMENTS (Includ	ling Author	, Title, Date, Per	tinent Pages, Etc.)	
	65 Nijssen, G.M. et al., "Conceptual Schema and Relational Database Design, A Fa Oriented Approach", Department of Computer Science, University of Queensland Prentice Hall, 10-33, 42-43, 48-51, 156-170					
	66	Oracle 9i SQL Reference, Release 2 (9.2), March 2002, 13-89 to 13-90				
	67	Orenstein, J, et al, "Query Processing in the Object Store Database System", ACM SIGMOD International Conference on Management of Data, June 1992, 21(2),403,412				
	68	Ottogalli, F.G. et al., "Vi		* *	olications for Performance uary 2001, 2074, 831-840	
	69		atorial App	roach to Content-I	Based Music Selection",	
	70		tributed Sci	entific Data Archi	ve Using the Web, XML and	
	71	Powell, M., "Object, Ref 1993), OMG TC Docume	•	•	lity White Paper", (Jul. 2,	
	72	Prosise, J., "2-D Drafting: Why Pay More?", PC Magazine: The Independent Guide to IBM-Standard Personal Computing, 1993, 12(4), 255-289				
		Reiner, A. et al., "Benefits of X-based Three-Tier Client/Server Model with ESRI Applications", Virtual Solutions, 1995, 9 pages				
	74 Read, III, B.C., "Developing the Next Generation Cockpit Display System", IEEE Aerospace and Electronics Systems Magazine, 1996, 11(10), 25-28					
EXAMINER				DATE CONSID		

Form	Form P1O-1449 Violitied			o. /50/302726.01	Application No. 10/646,940	
C	3 11			Applicant J. Patrick Thompson, et al.		
	-	nent of Commerce Frademark Office	Filing Dat August 2		Group 2168	
			Confirmation 1753	tion No.		
O'	THE	R DOCUMENTS (Incl	uding Author	r, Title, Date, Pe	rtinent Pages, Etc.)	
	75	Rouse, N.E., "CAD Pi 59(25),117-122	oneers are Sti	ll Trailblazing",	Machine Design, Oct. 22, 1987,	
	76	Roussopoulos, N. et al., "Using Semantic Networks for Data Base Management", Proceedings of the 1 st Supplemental VLDB Conference, 1975, 144-172				
	77	Santos, J.L.T. et al., "Computer Aided Mechanical Engineering Design Environment for Concurrent Design Process", <i>Proceedings of the 1993 ITEC Workshop on Concurrent Engineering</i> , May 4-6, 1993, Simulation in Concurrent Engineering, 783				
	78			• • • • • • • • • • • • • • • • • • • •	ect-Relational Databases", <i>The</i> arge Databases, 1998 , 7, 130-	
	79	Simon, A.R., <i>Strategic</i> pp 6-9, 14-17, 55-57, N		-	gement for the Year 2000, 1995,	
	80	2.2	id Computation	on Environment f	or Multibody Simulation", 1-140	
	81	Singhal, A. et al., "DD Association for Compu	•	_		
	82	82 Stevens, T., "Value in 3-D", Industry Week, January 8, 1995, 45-46				
	83	Stonebraker, M., "The	Case for Part	ial Indexes", SIG	MOD Record, 1989, 18(4), 4-9	
	84	Strickland, T.M., "Inte International Conferen			ect", Proceedings of the AM/FM 69-75	
EXAMINER				DATE CONSI	DERED	

Form P	TO.	-1449 Modified	Docket No MSFT-17	50/302726.01	Application No. 10/646,940	
Cit	→ 11			Applicant J. Patrick Thompson, et al.		
_		ent of Commerce rademark Office	Filing Dat August 21		Group 2168	
			Confirmat 1753	ion No.		
OT	HEF	R DOCUMENTS (Includ	ing Author	, Title, Date, Pert	inent Pages, Etc.)	
	85	Sutherland, J. et al., "The Integration of Object-Ori States of the Art and Practical States o	ented and F	Relational Technological	chitecture (HORA), An ogy", <i>Applied Computing:</i>	
	86					
	87					
	88					
	89	Varlamis I. et al., "Bridging XML-Schema and Relational Databases. A System for generating and Manipulating Relational Databases using Valid XML Documents", DocEng' Ol, November 9-10, 2001				
	90	Wilcox, J., "Object Datab Dobbs Journal, November	pases-Objec		ibuted Computing", Dr.	
	91	Watanabe, S., "Knowledge Computer-Aided Archited	_		l Design", Knowledge-Based	
	92					
	93	Wold, E. et al., "Content- IEEE Multimedia, IEEE			•	
	94	Yoshikawa, M. et al., "XRel: A Path-Based Approach to Storage and Retrieval of XML Documents Using Relational Databases", ACM Transactional on Internet technology, August 2001, 1(1), 110-141				
EXAMINER				DATE CONSIDI	ERED	

Fo	rm P	ΓO-1449 Modifi	ied	Docket No. Application No. 10/646,940			
List of Patent and Publications Cited by Applicant (Use several sheets if necessary)				Applicant J. Patrick Thompson, et al.			
		artment of Commer nd Trademark Offic		Filing Date August 21, 2003	Group 2168		
				Confirmation No. 1753			
		U	. S. PATEN	T DOCUMENTS			
Examiner Initial		Document No.	Date	Name	Class	Subclass	
	95	5,893,106	04/06/99	Brobst, et al.	707	102	
	96	6,085,192	07/04/00	Mendez, et al.	707	10	
· · · · · · · · · · · · · · · · · · ·	97	6,151,606	11/21/00	Mendez	707	201	
	98	6,708,221 B1	03/16/04	Mendez, et al.	709	248	
					-		
······································							
		FOR	EIGN PATE	ENT DOCUMENTS			
Examiner Initial		Document No.	Data	Committee		nslation	
шиа	99	WO 02/075539 A2	Date 09/26/02	PCT	YES	NO	
EXAMINER				DATE CONSIDERED			

Form PTO	-1449 Modified	Docket No MSFT-17	50/302726.01	Application No. 10/646,940	
Cited b	t and Publications by Applicant sheets if necessary)	Applicant J. Patrick	Thompson, et al.		
) -	nent of Commerce Crademark Office	Filing Dat August 21		Group 2168	
		Confirmat 1753	ion No.		
OTHE	R DOCUMENTS (Includ	ing Author	, Title, Date, Perti	inent Pages, Etc.)	
100	Selective Conflict Resolu	eedings of the 5 th L	ical Eventual Consistency and EEE Workshop on Mobile		
101	Computing Systems and Applications, 2003, 170-179 Huang, Yun-Wu. Et al., "Lightweight Version Vectors for Pervasive Computing Devices", IEEE, 2000, 43-48				
102	Ramsey, N. et al., "An Algebraic Approach to File Synchronization", Software Engineering Notes, Association for Computing Machinery, September 2001, 26(5), 175-185, XP002295139				
103			cation and a Solution	on", SIGMOD, 1996, 25(2),	
104		-tier Archite	-	us Data Access", Computer 80, XP010551207	
	Kistler, J.J. et al., "Disco Transactions on Comput	nnected Op er Systems,	eration in the Coda February 1992, 10	File System", <i>ACM</i> 0(1), 3-25, XP000323223	
	Kistler, J.J. et al., "Increa Replication", <i>IEEE</i> , 1990	0, 65-69, XI	2010021244		
107	"SyncML Sync Protocol http://www.syncml.org/d	locs/syncml	protocol v10 2000	1207.pdf	
108	Seshadri, P. et al., "SQLServer for Windows Ce-a Database Engine for Mobile and Embedded Platforms", Data Engineering, Proceedings of the 16 th International Conference, IEEE Computer Society, March 2000, 642-644, XP 010378761				
109					
EXAMINER			DATE CONSIDI	ERED	

Form PTO-1449 Modified			-1449 Modified	Docket N MSFT-1'	o. 7 50/302726.01	Application No. 10/646,940	
	List of Patent and Publications Cited by Applicant (Use several sheets if necessary) U.S. Department of Commerce Patent and Trademark Office			Applicant J. Patrick Thompson, et al.			
				Filing Da August 2		Group 2168	
			·	Confirma 1753	tion No.		
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)							
	110 Greenwald, R. et al., "Oracle Essentials: Oracle 8 & Oracle 8i", MultiUser Concurrency, 1999, Ch. 7, 7 pages, XP-002312028						
		111 Plattner, C. et al., "Ganymed: Scalable Replication for Transactional Web Applications", <i>IFIP International federation for Information Processing</i> , 2004, 155-174, XP-002370197					
-		112	Shapiro, M. et al., "Managing Databases with Binary Large Objects", <i>IEEE</i> , 1999, 185-193, XP-000922048				
		·			1		
17.9							
EXAMINER					DATE CONSIDERED		